

# MI8 line multiwire scanners

## Background and noises

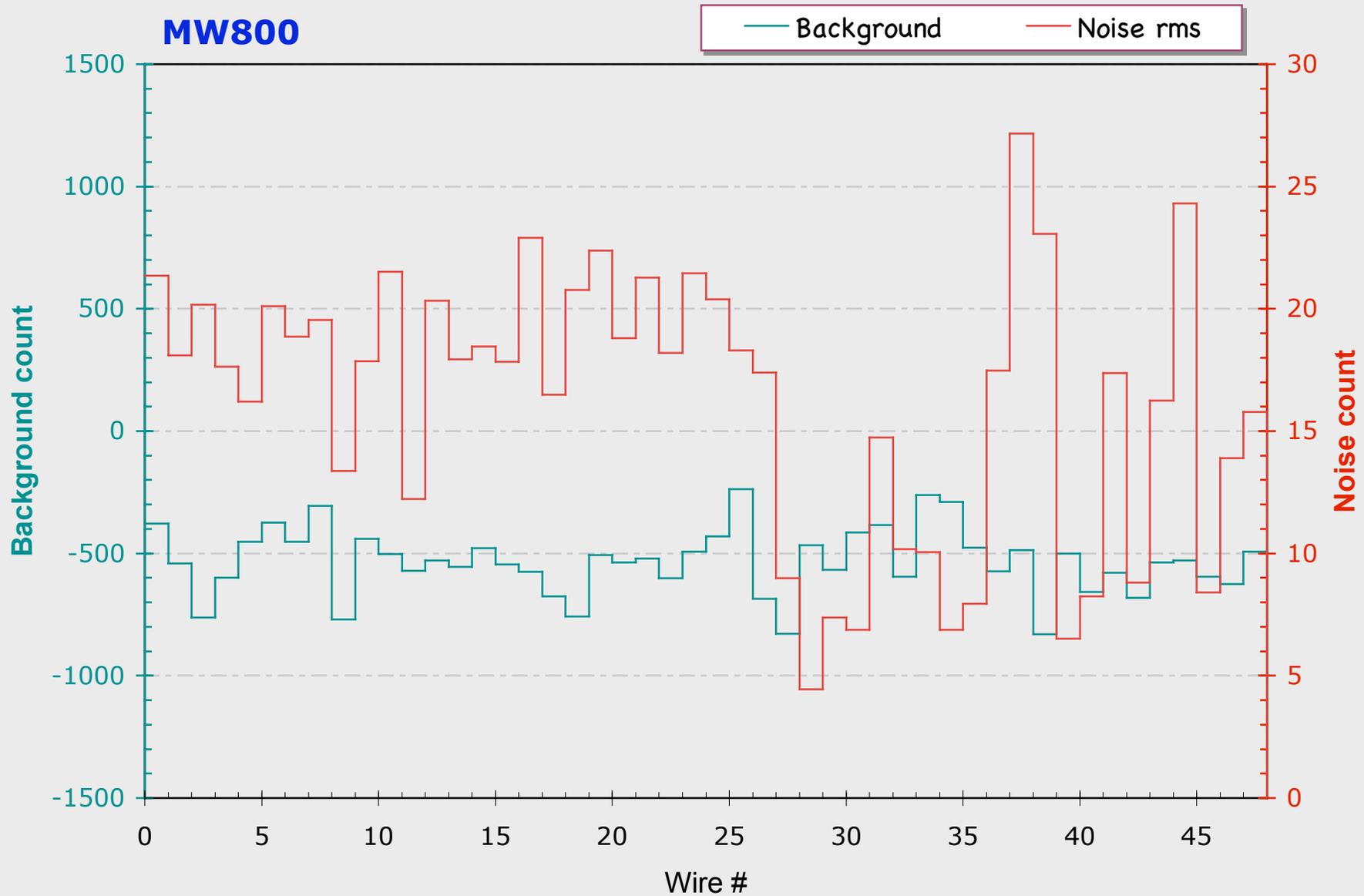
Ming-Jen Yang  
Feb 3, 2009

# Data

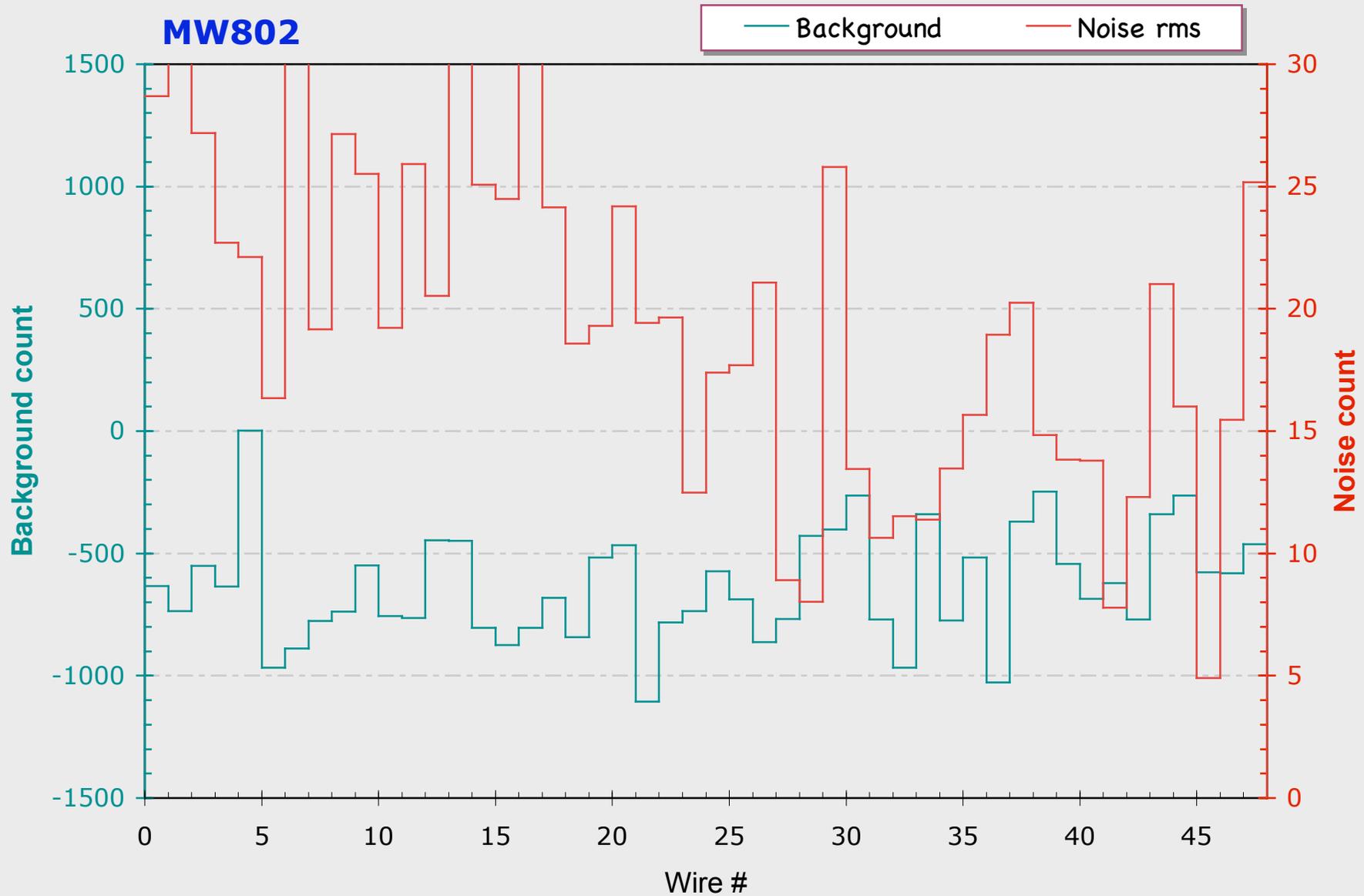
- ❖ Sampled under no beam condition
- ❖ Integration time
  - ▶ 1 ms for Texas style profile monitors
  - ▶ 10 ms for all others.

Fermi style monitors

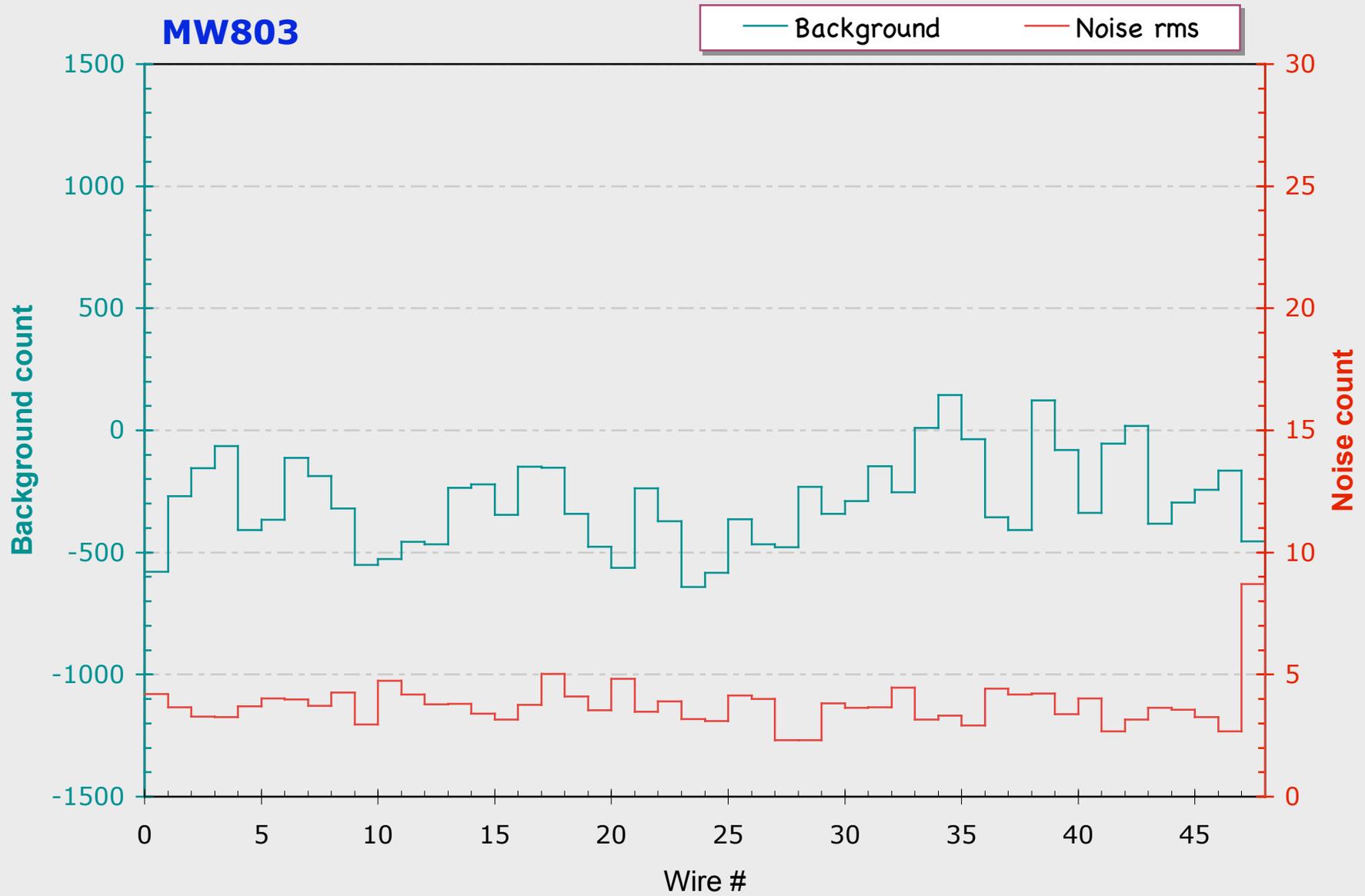
# Background and noise rms, mw800



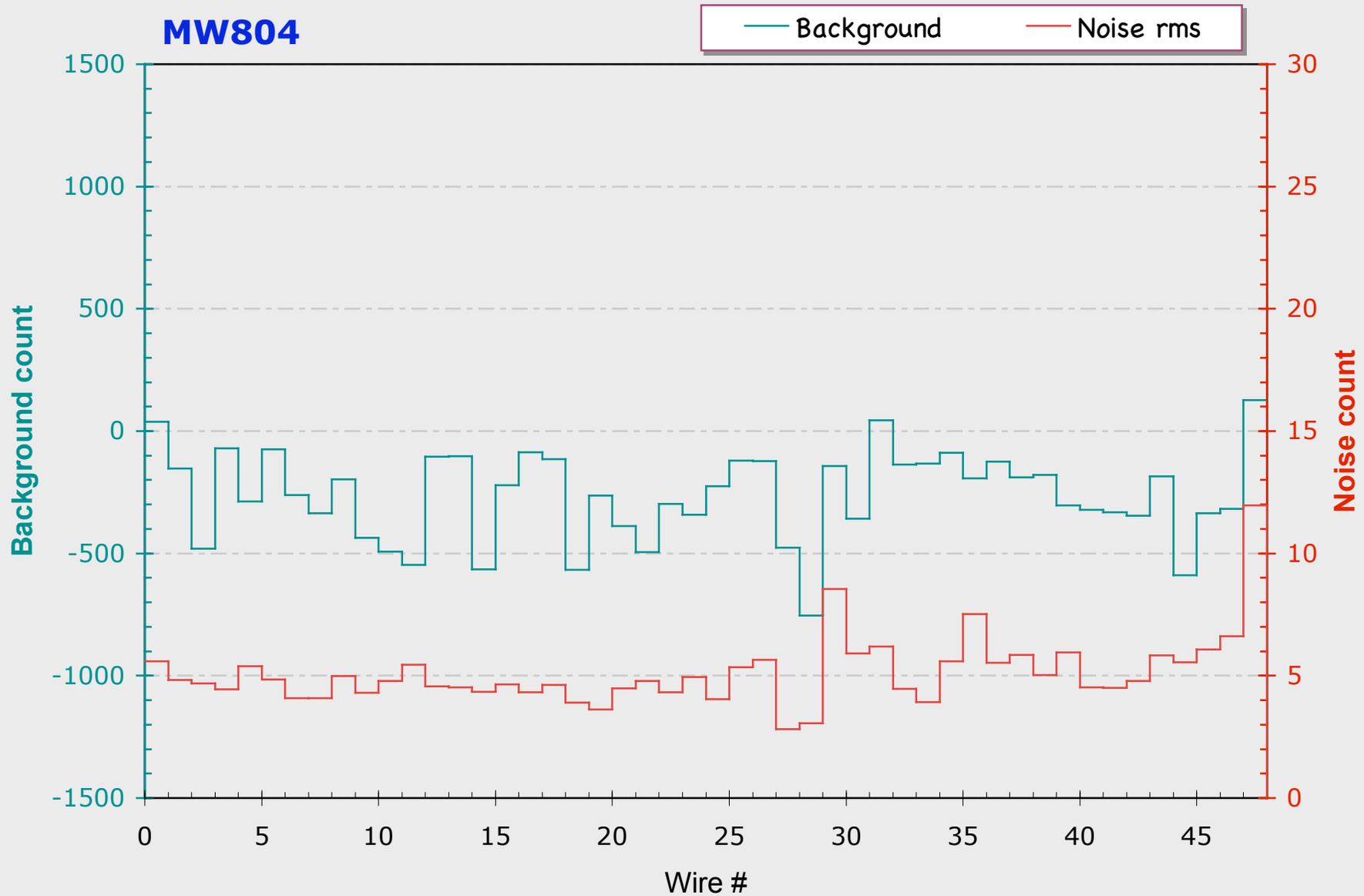
# Background and noise rms, mw802



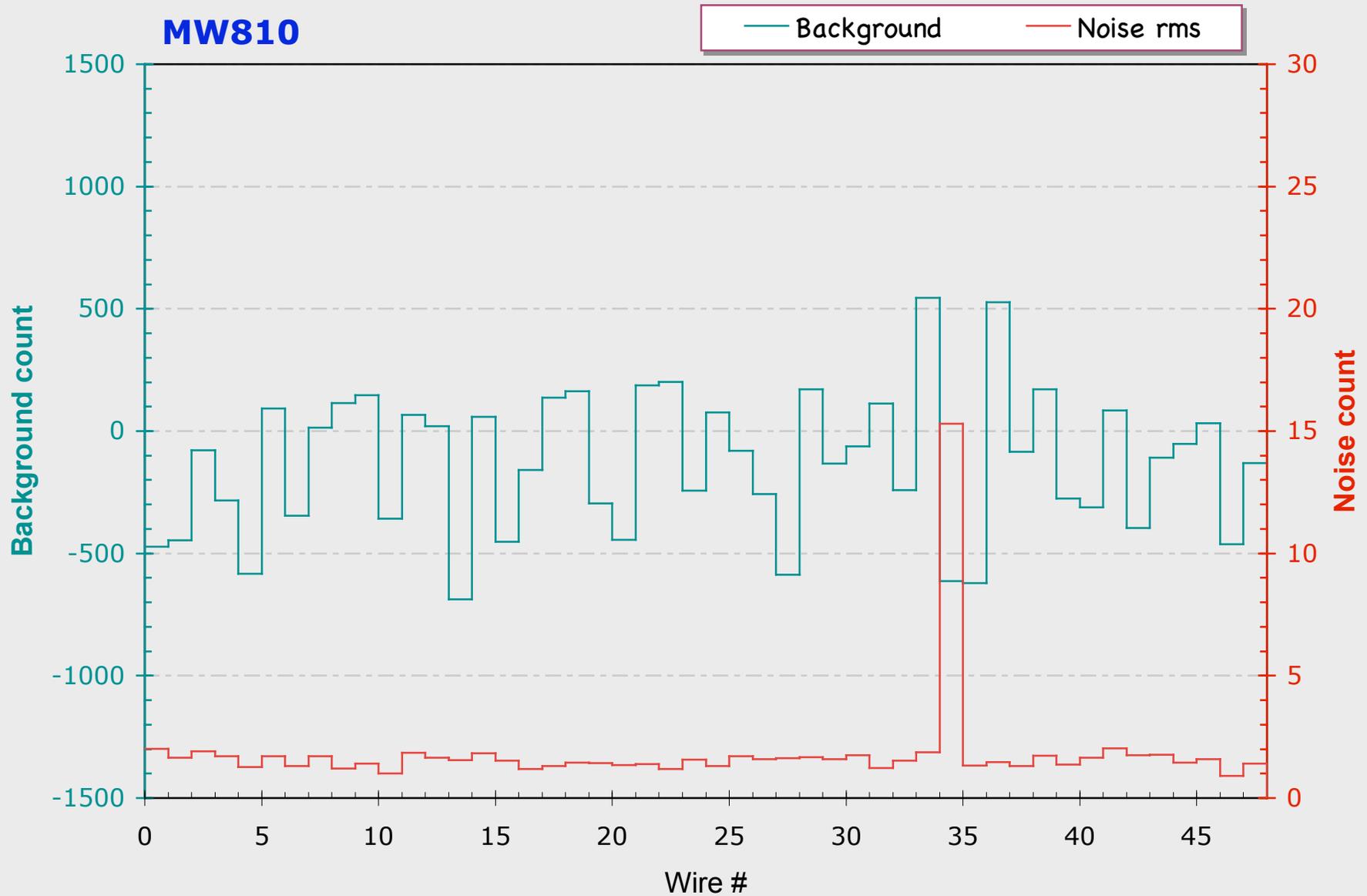
# Background and noise rms, mw803



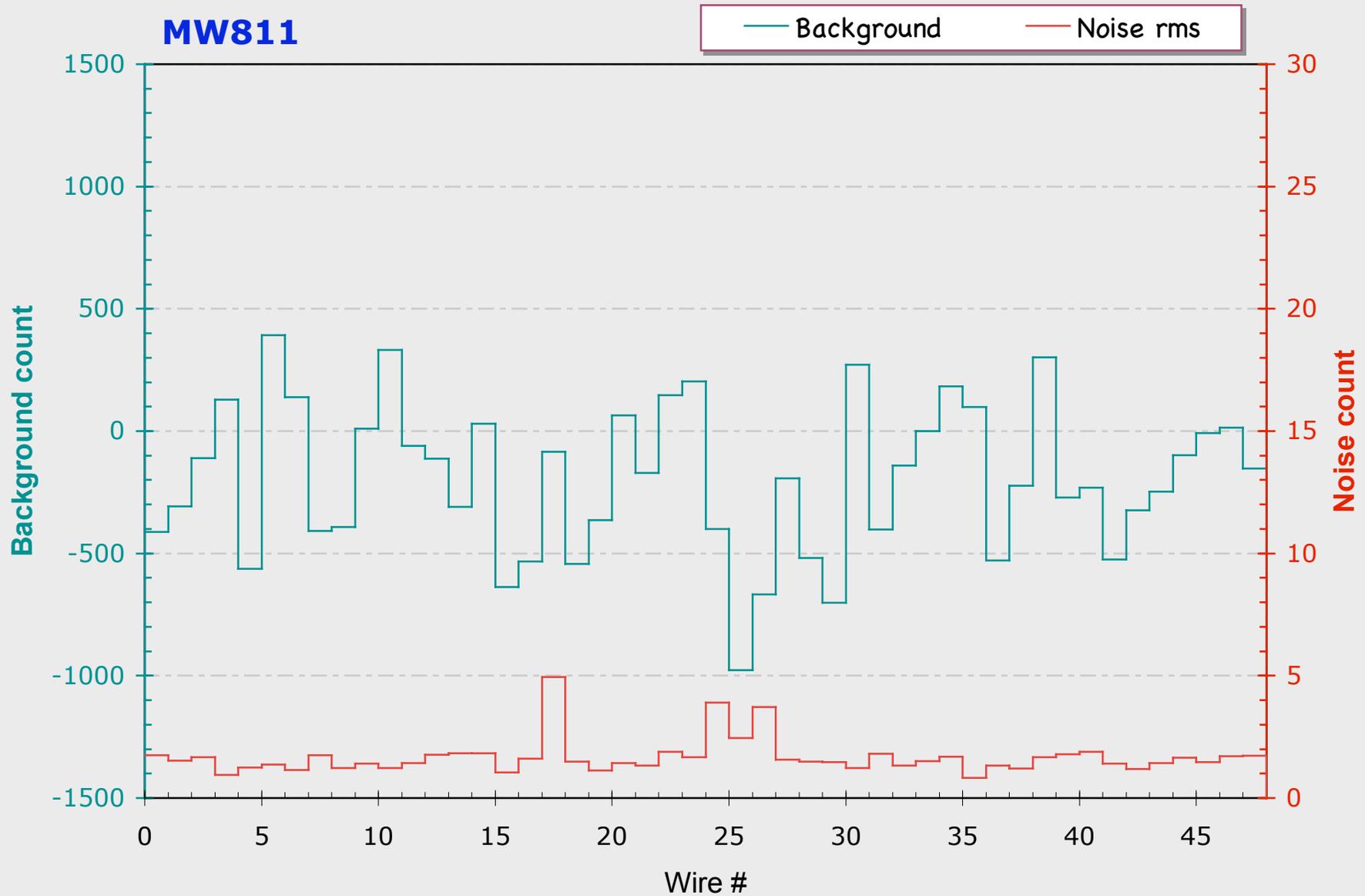
# Background and noise rms, mw804



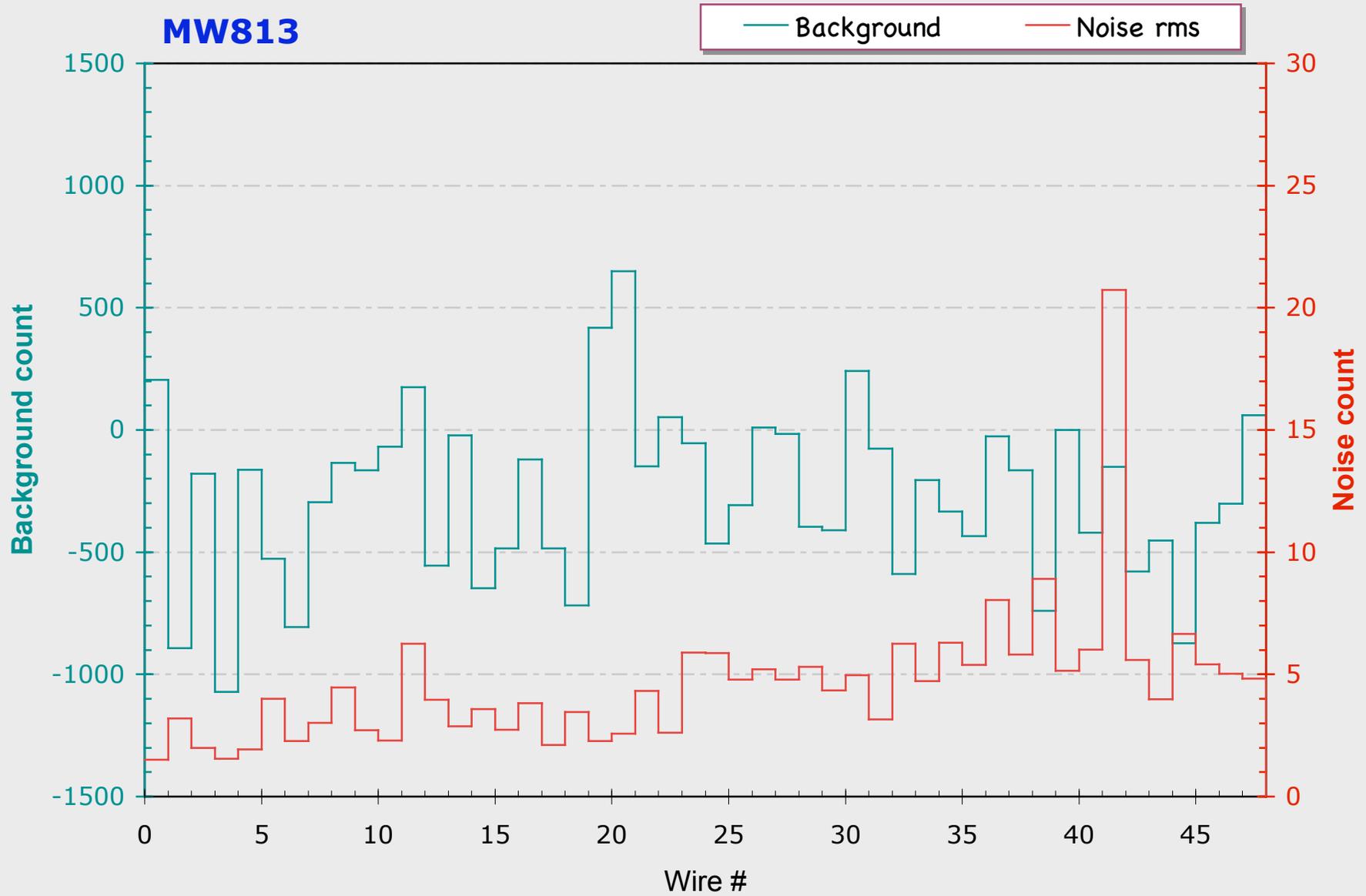
# Background and noise rms, mw810



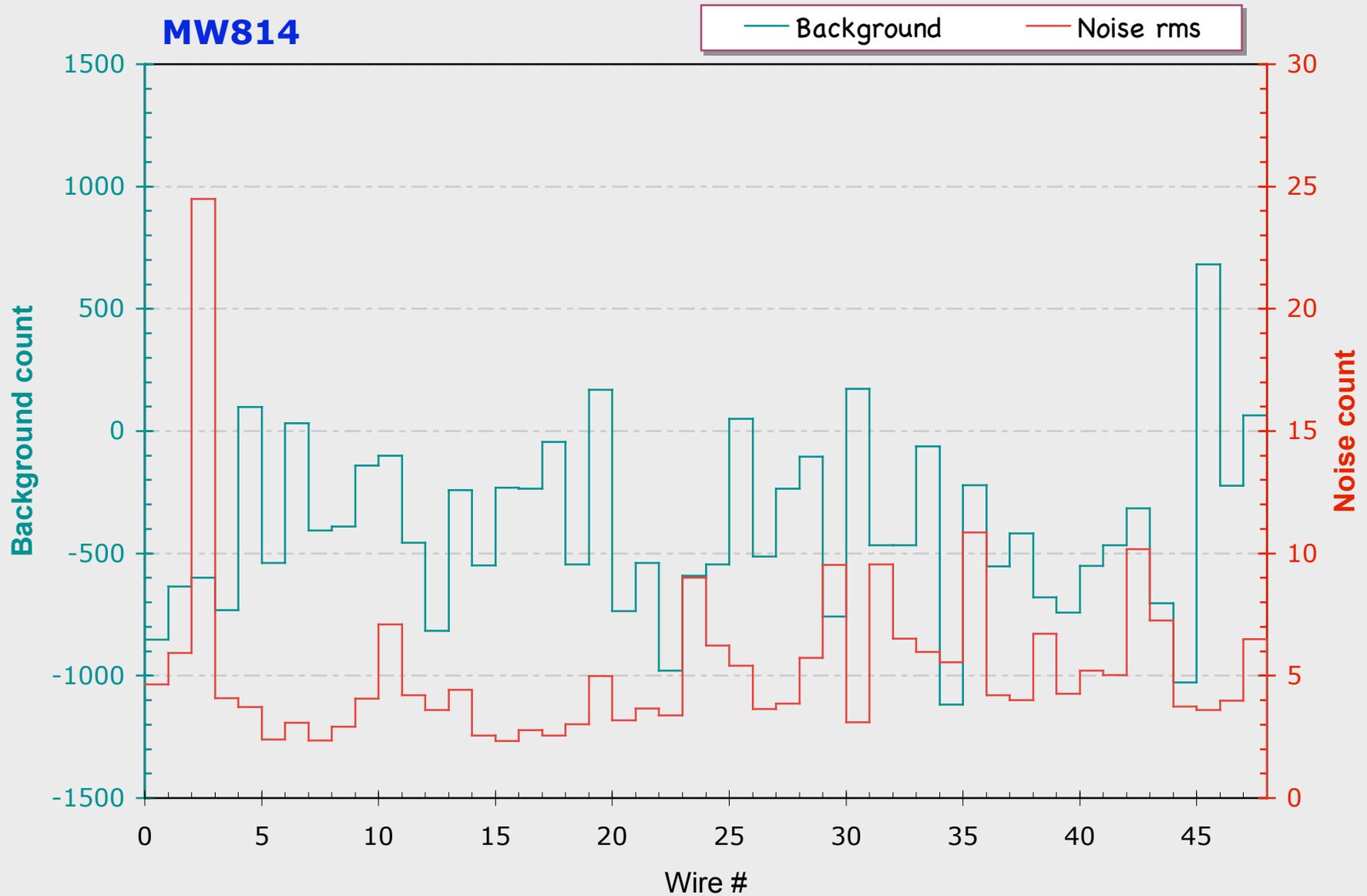
# Background and noise rms, mw811



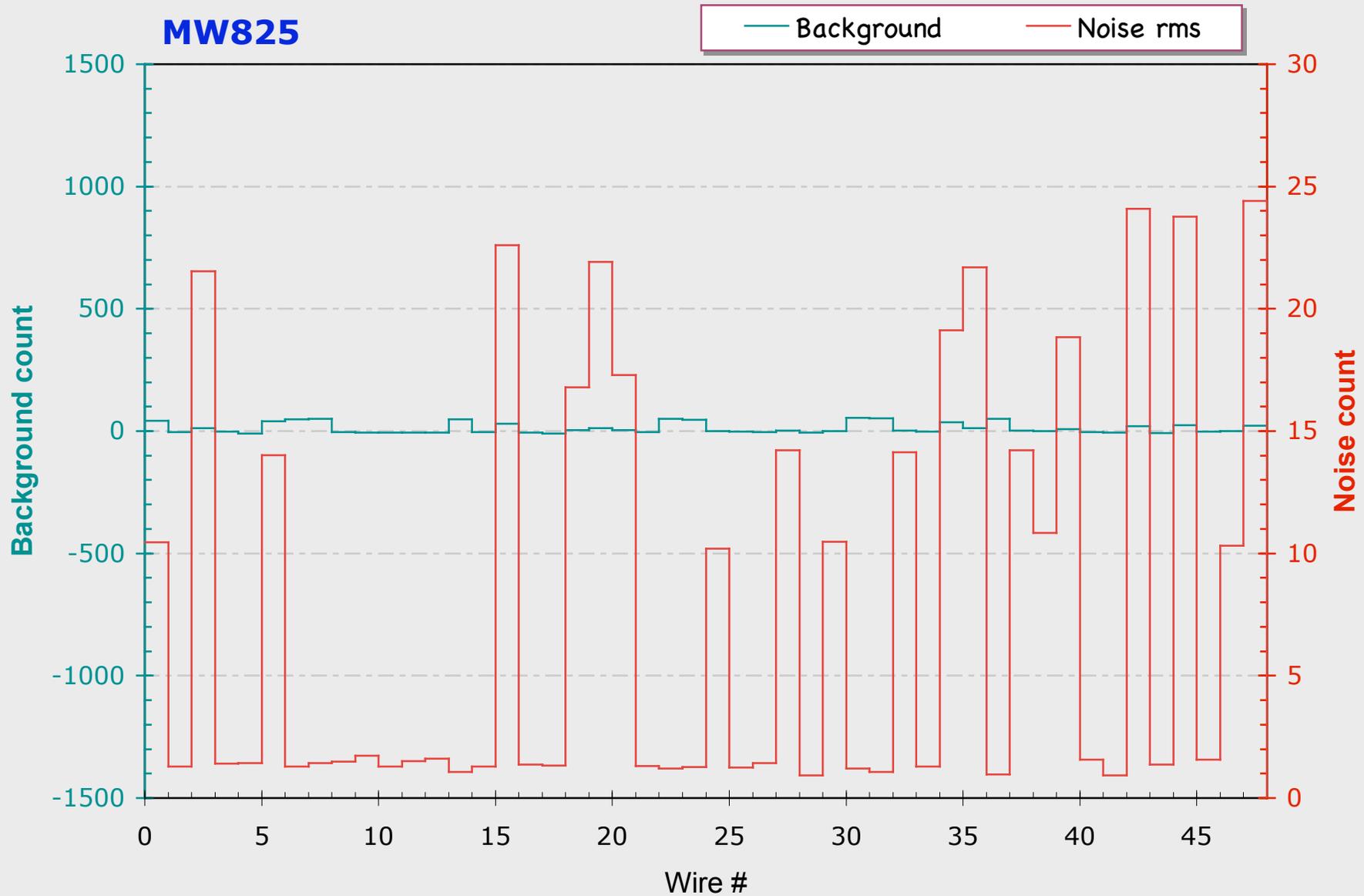
# Background and noise rms, mw813



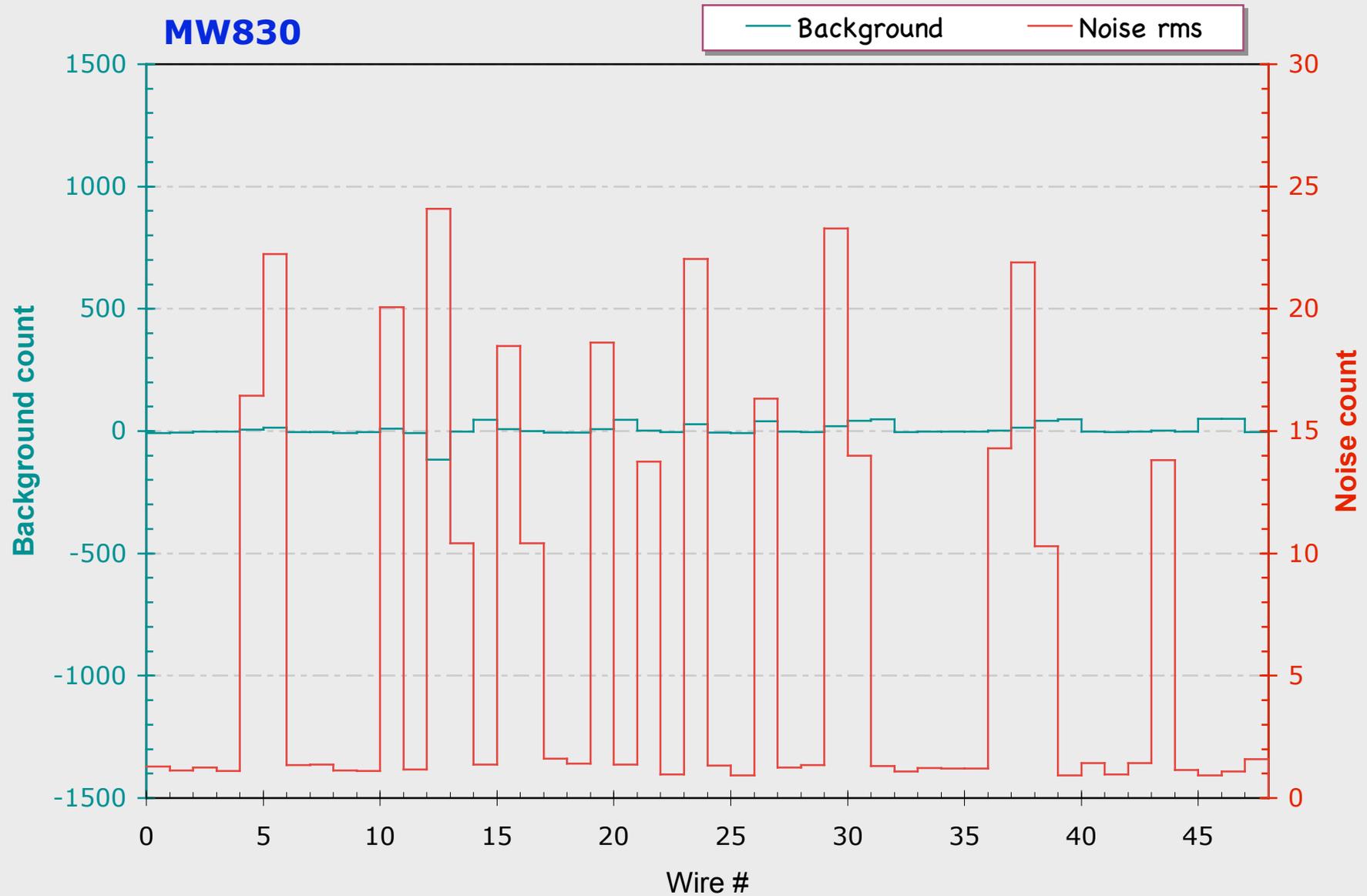
# Background and noise rms, mw814



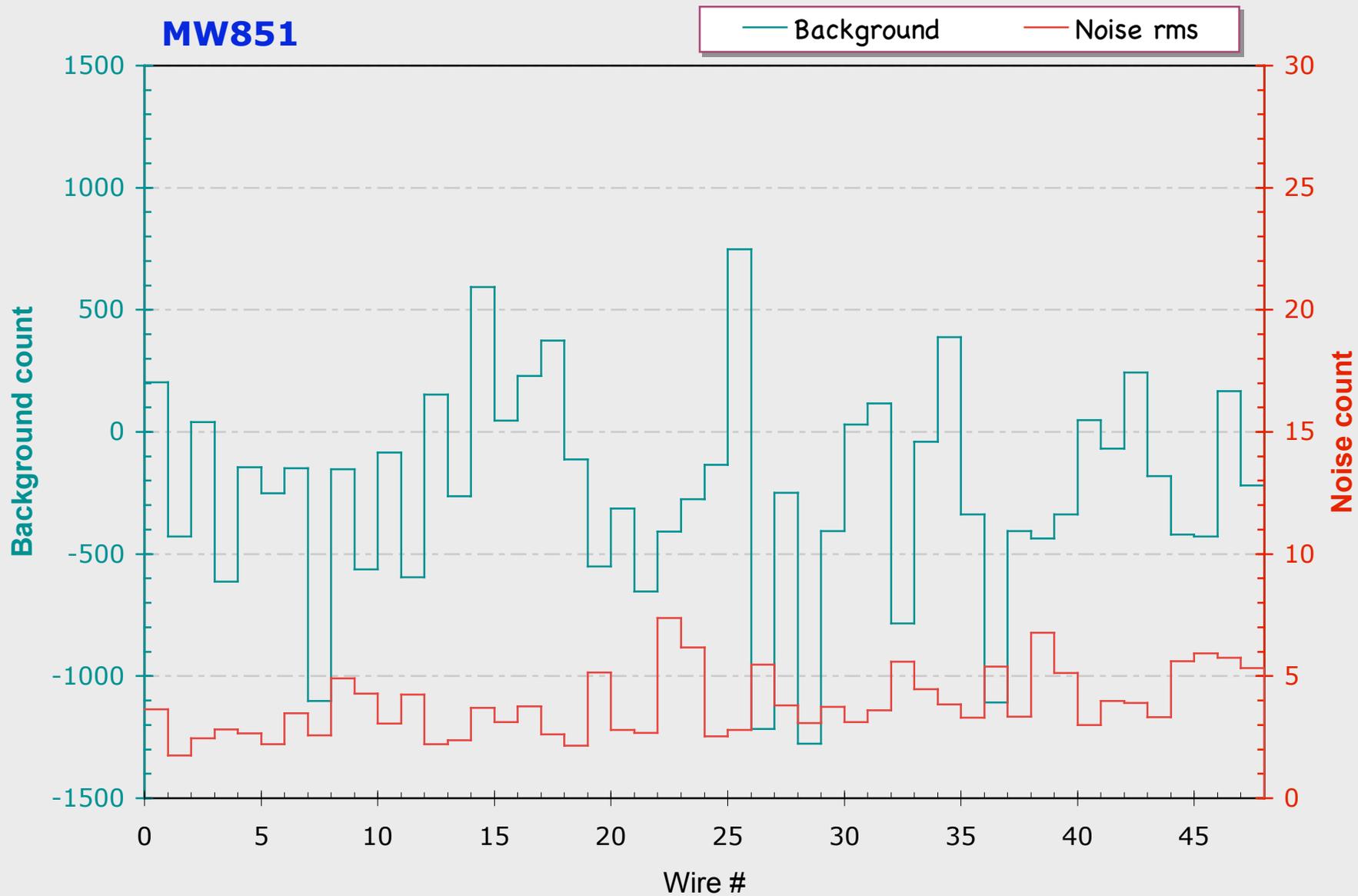
# Background and noise rms, mw825



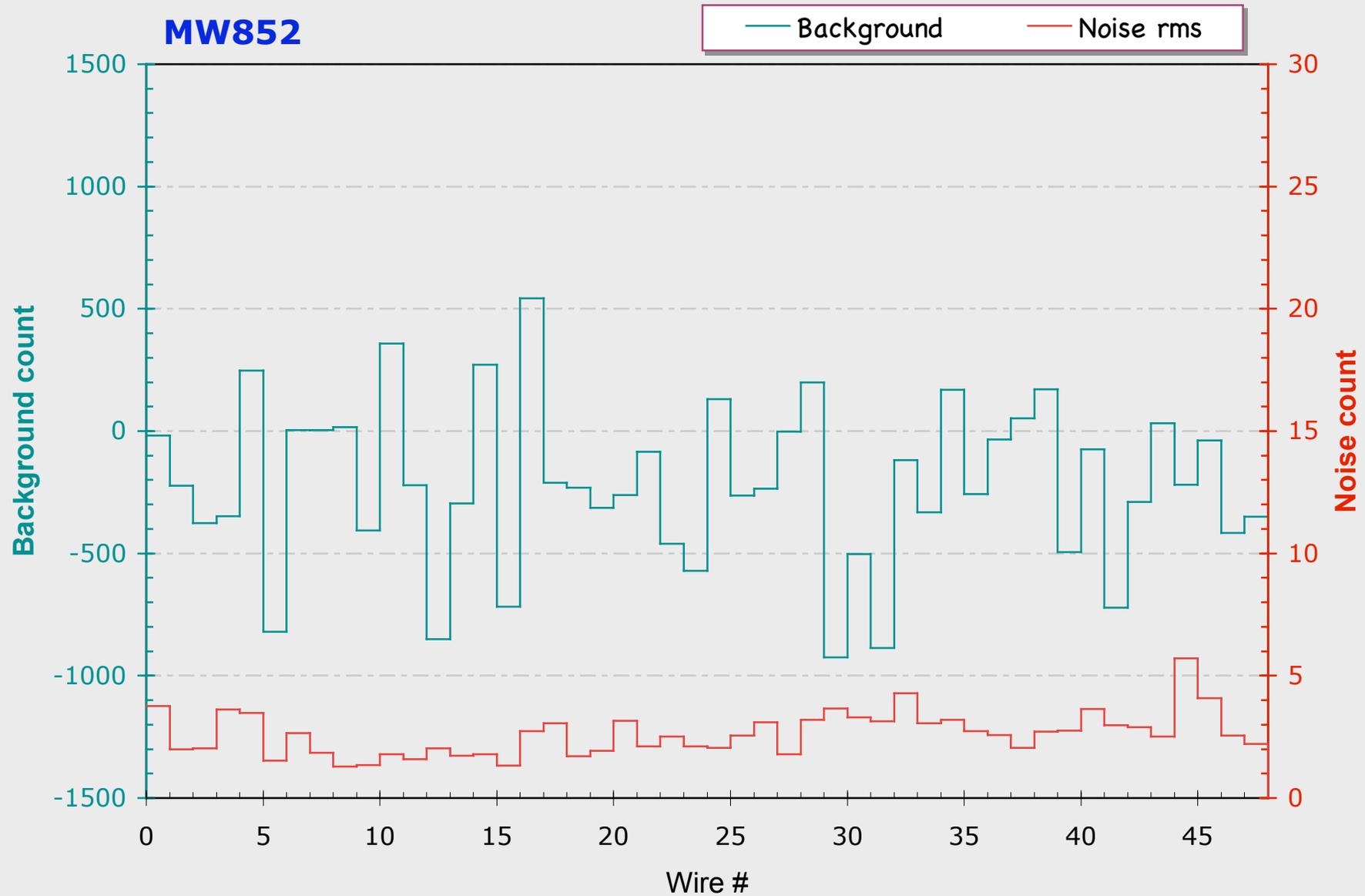
# Background and noise rms, mw830



# Background and noise rms, mw851

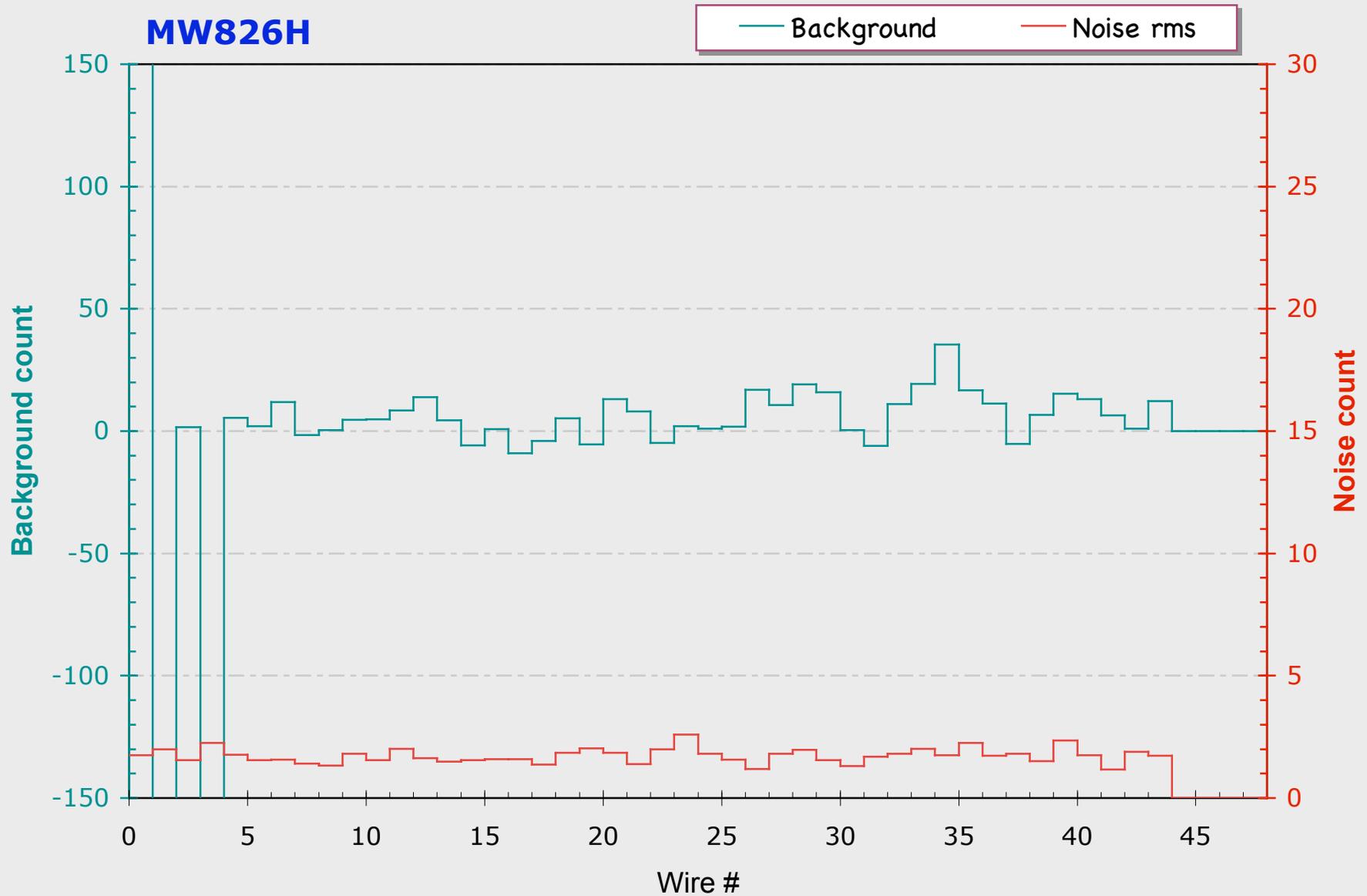


# Background and noise rms, mw852

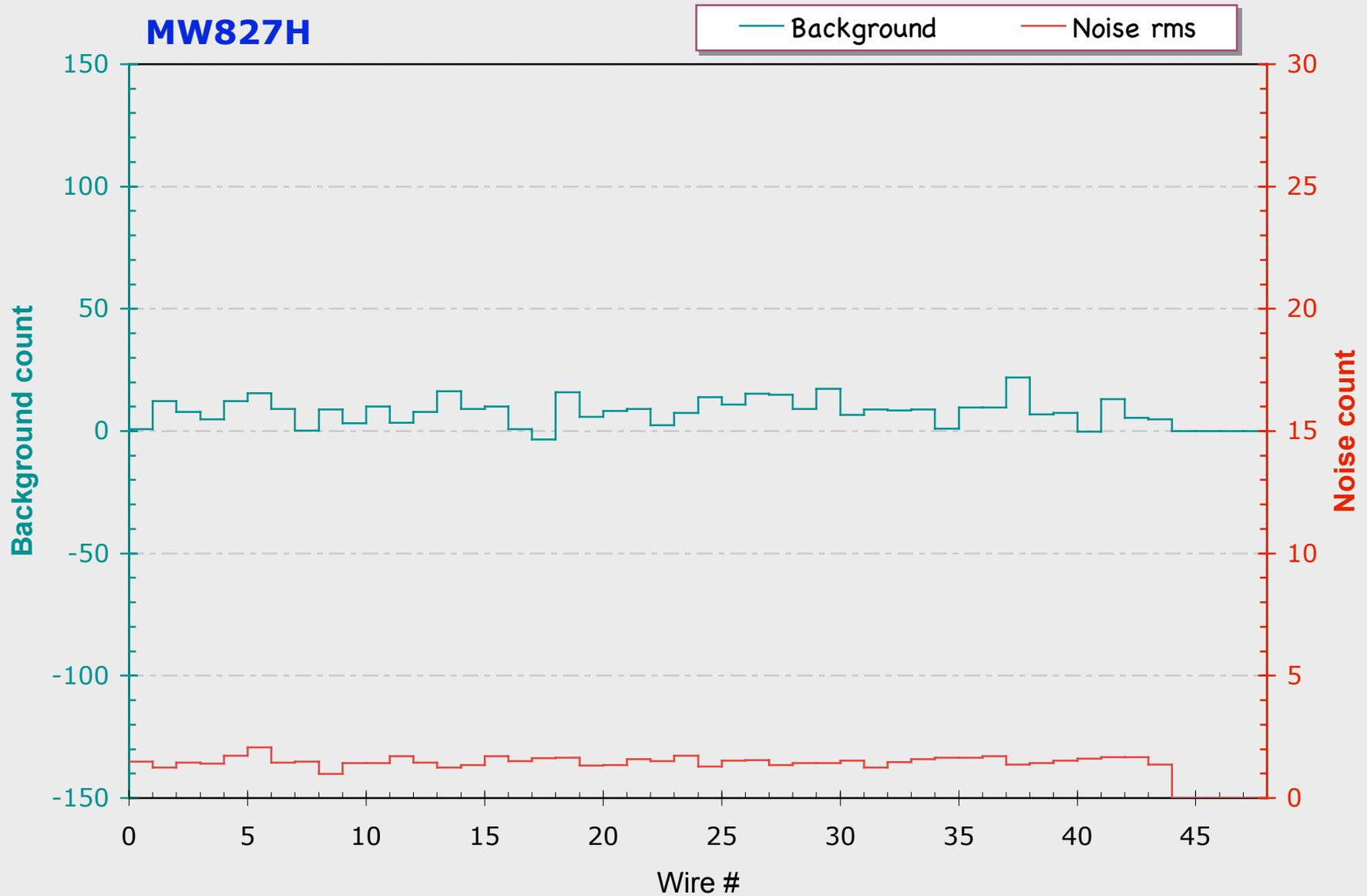


Texas style monitors

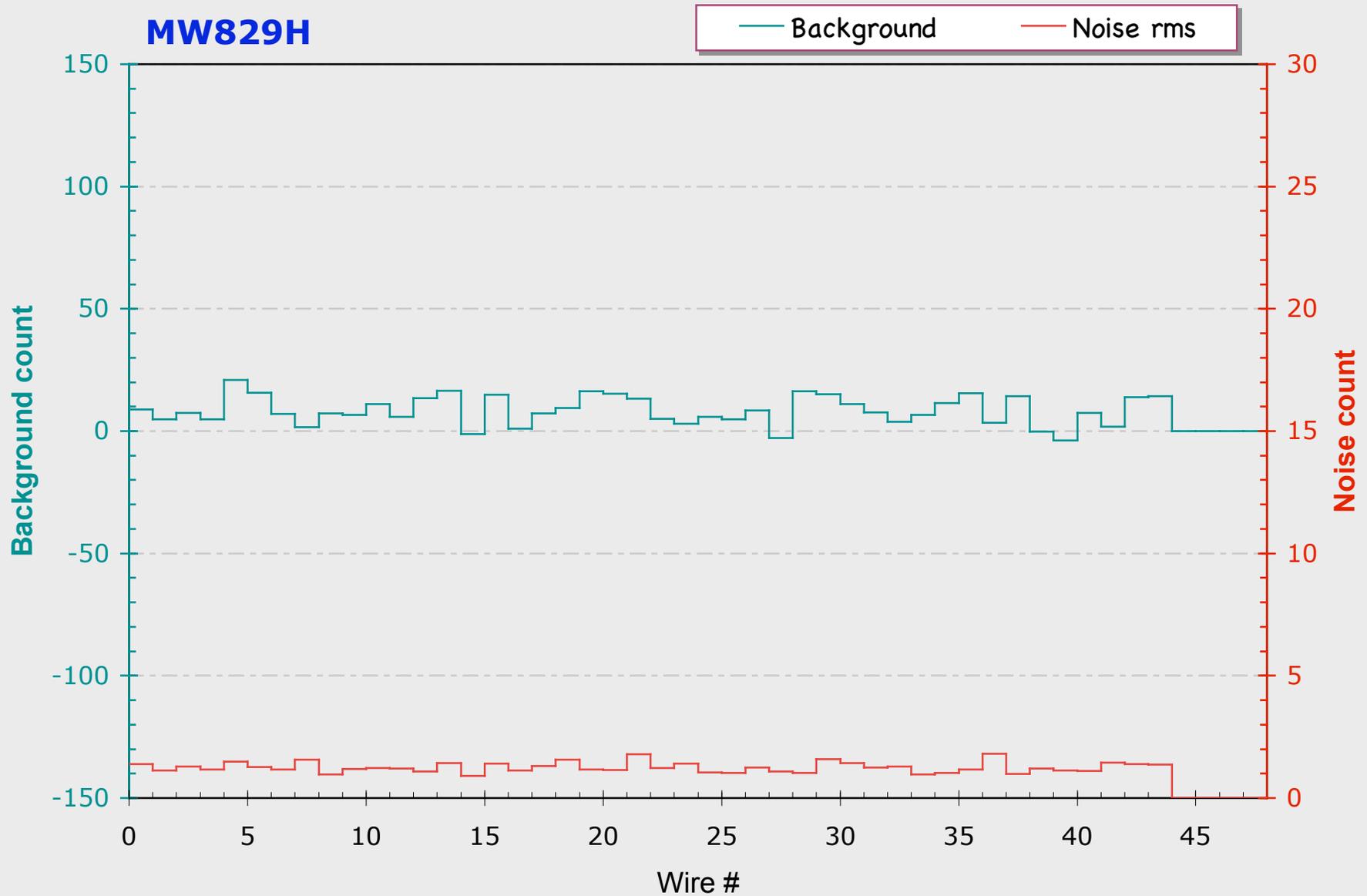
# Background & noise rms, mw826 horizontal



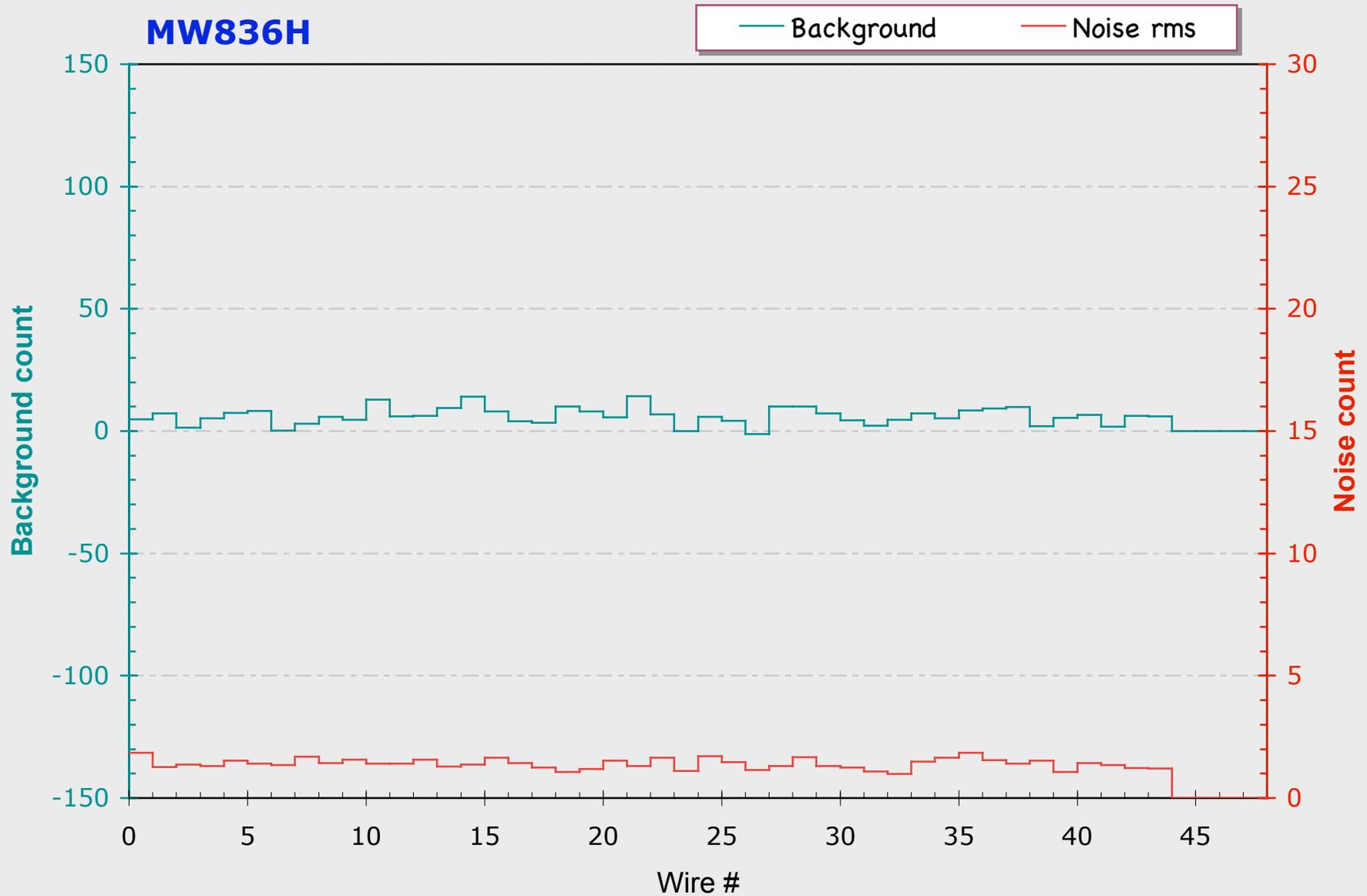
# Background & noise rms, mw827 horizontal



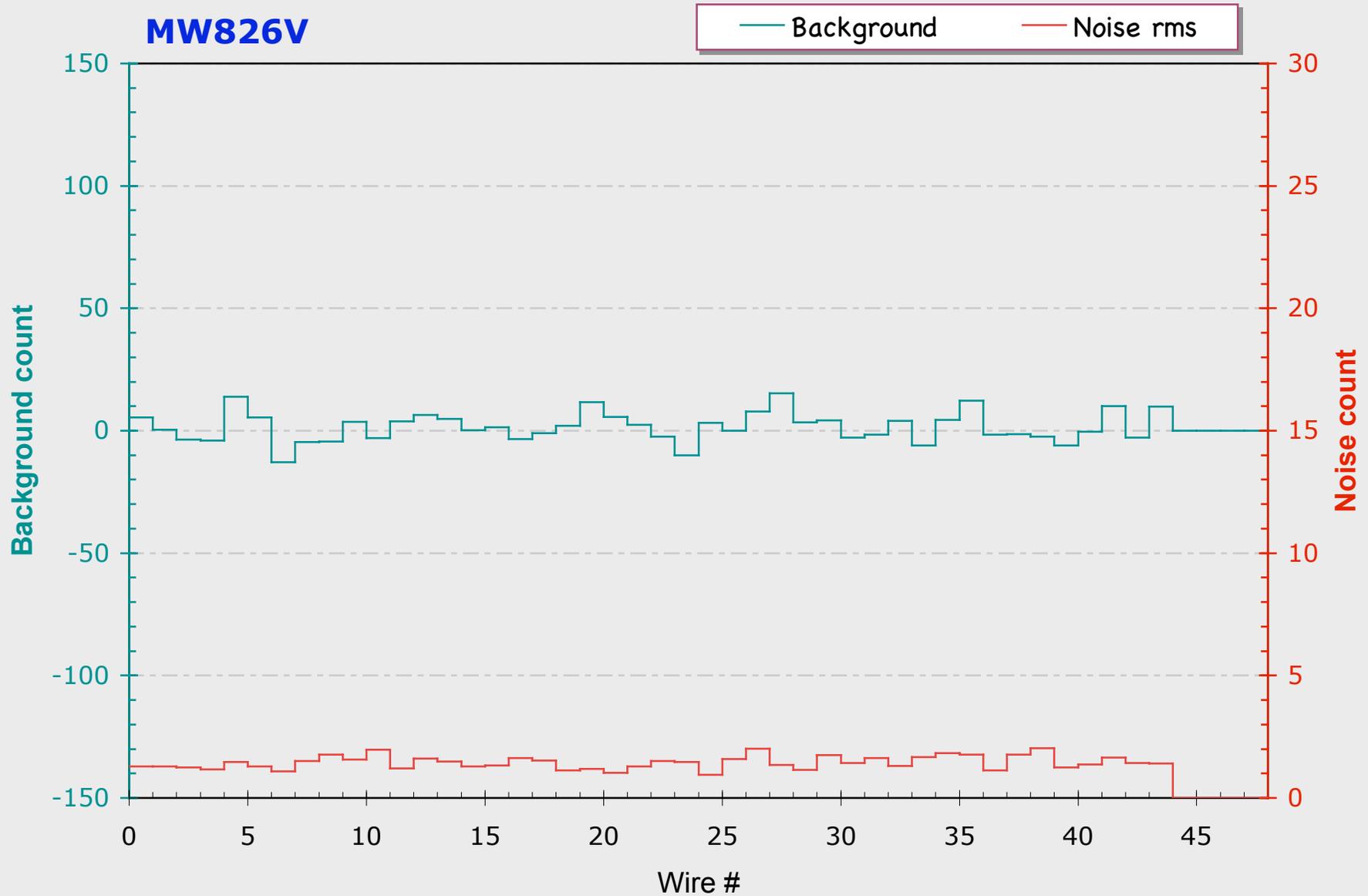
# Background & noise rms, mw829 horizontal



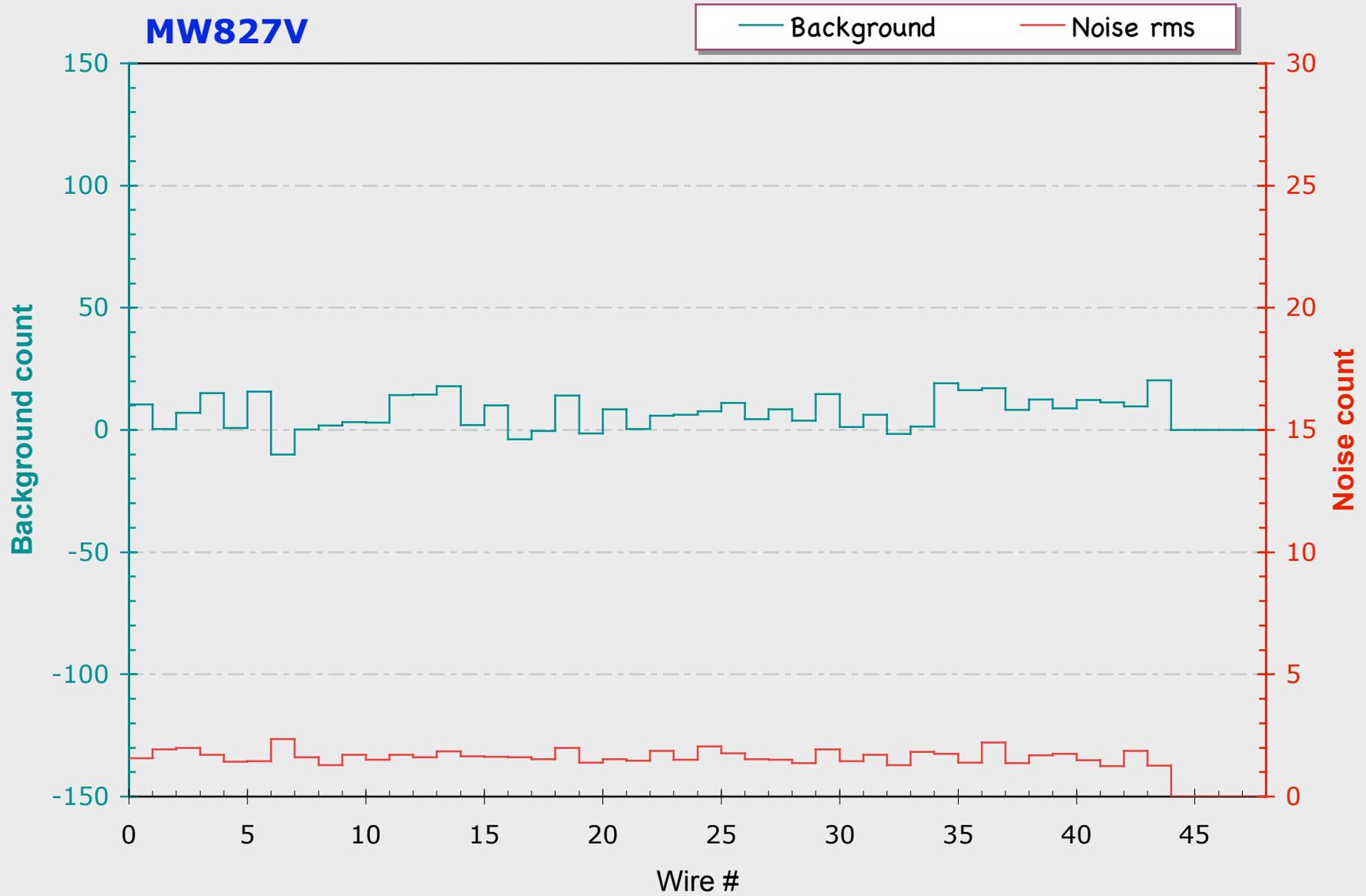
# Background & noise rms, mw836 horizontal



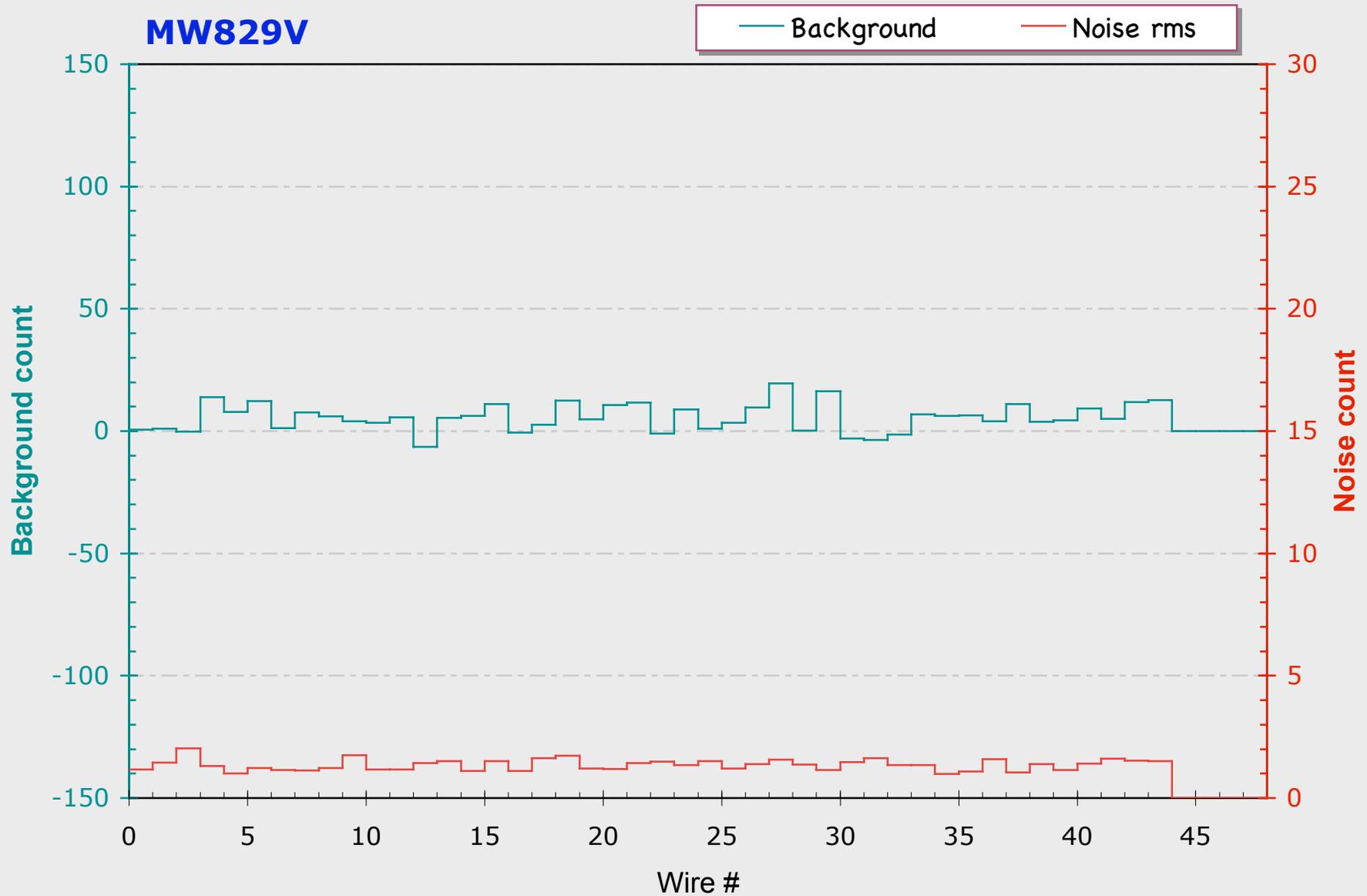
# Background & noise rms, mw826 vertical



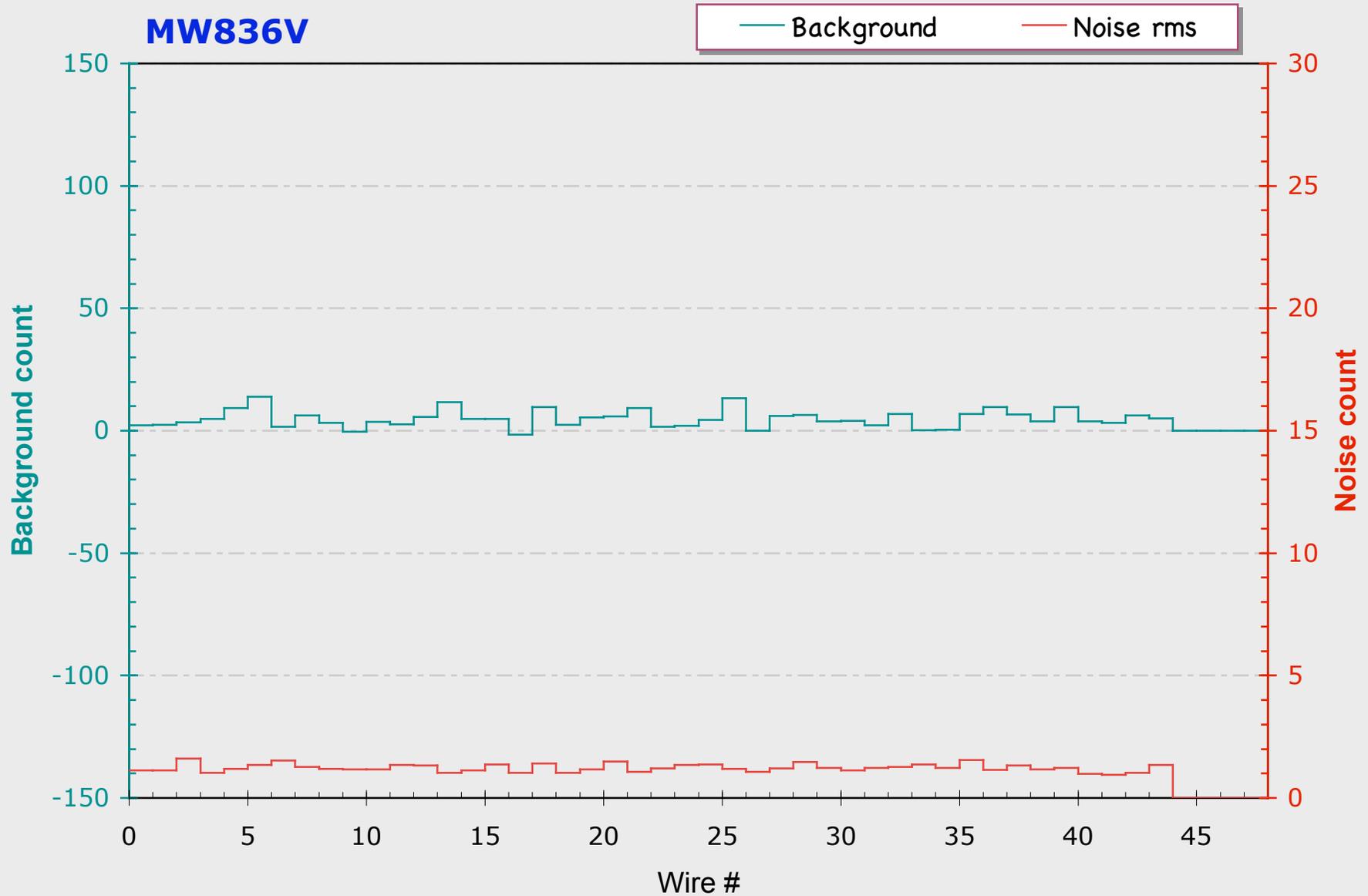
# Background & noise rms, mw827 vertical



# Background & noise rms, mw829 vertical



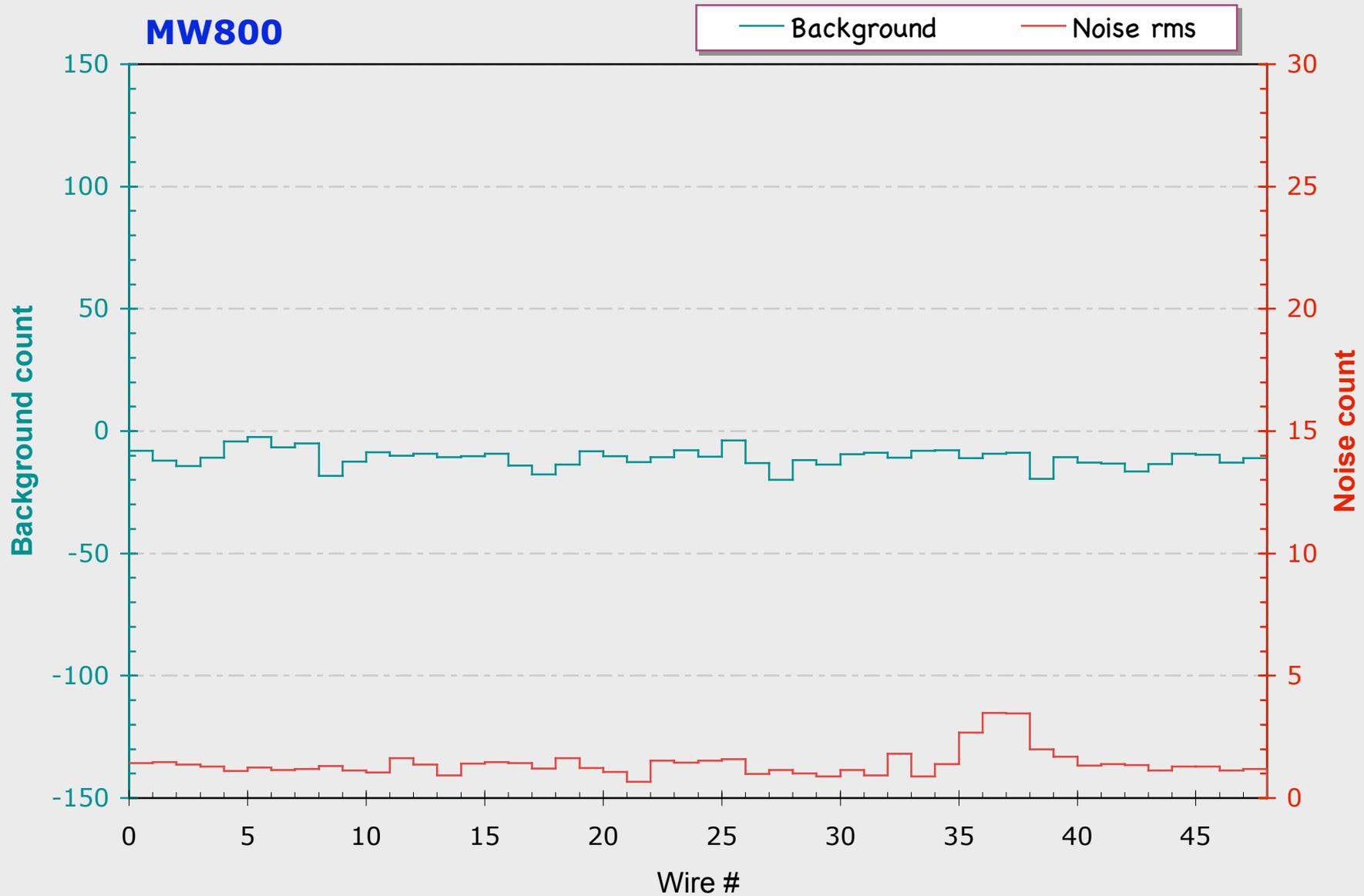
# Background & noise rms, mw836 vertical



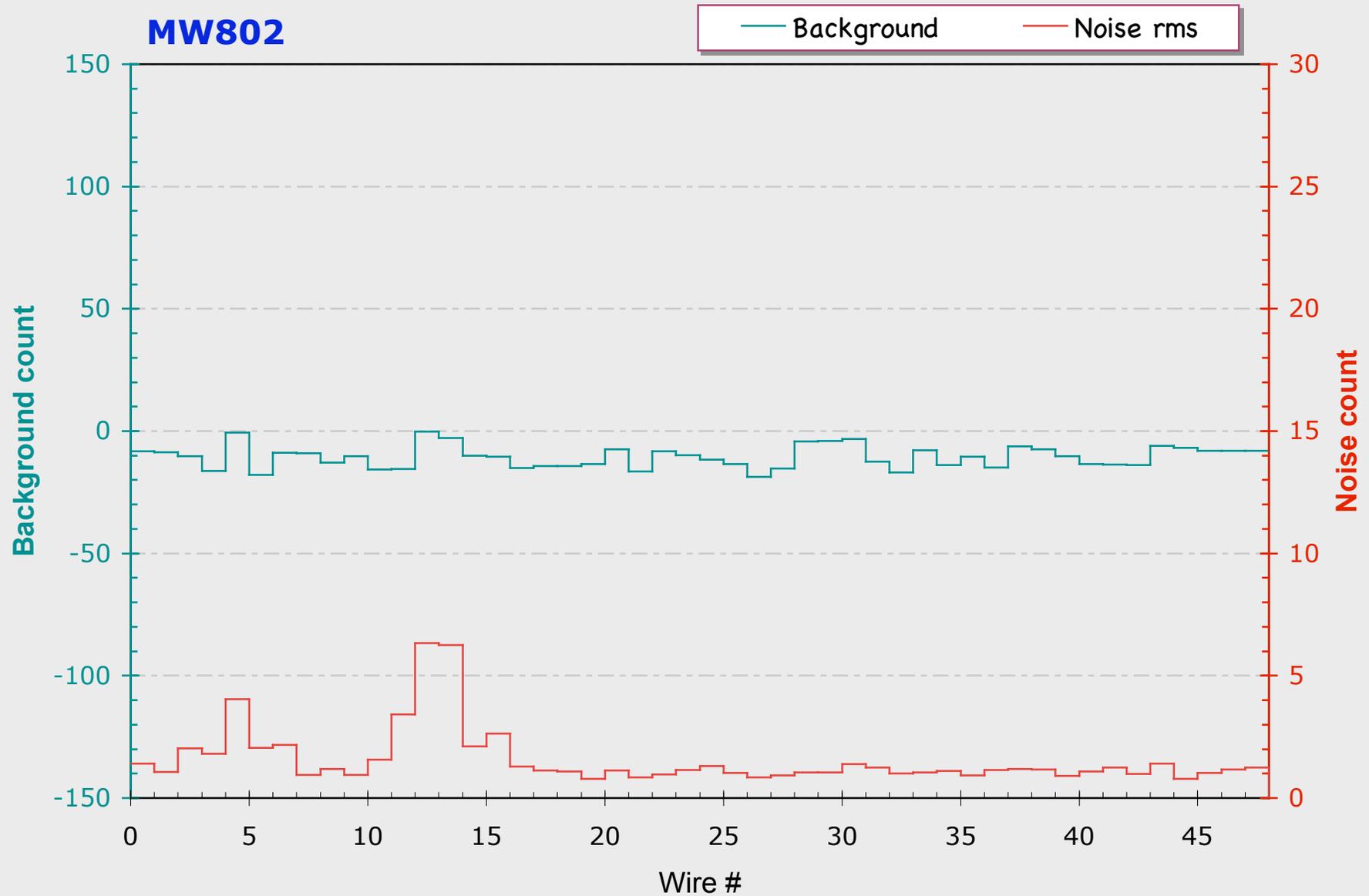
Fermi style monitor

Input cable removed

# Background and noise rms, mw800



# Background and noise rms, mw802



# Observations

- ❖ Background
  - ▶ Range from -1500 to +700 counts.
- ❖ Noise rms
  - ▶ Best - a couple of counts.
  - ▶ worst - over 20 counts.
- ❖ With input disconnected
  - ▶ Reduction of both ackground and noise count.
    - only tried with mw800 & mw802
- ❖ Is there something fundamentally different (better) in Texas chamber?
  - ▶ Integration gate time.